

### ABSTRACT OF THE DISCLOSURE

According to the present invention, oxygen and nitrogen are effectively prevented from mixing into the semiconductor film by doping Ar or the like in the semiconductor film in advance, and by irradiating the laser light in the atmosphere of Ar or the like. Therefore, the variation of the impurity concentration due to the fluctuation of the energy density can be suppressed and the variation of the mobility of the semiconductor film can be also suppressed. Moreover, in TFT formed with the semiconductor film, the variation of the on-current in addition to the mobility can be also suppressed. Furthermore, in the present invention, the first laser light converted into the harmonic easily absorbed in the semiconductor film is irradiated to melt the semiconductor film and to increase the absorption coefficient of the fundamental wave.